

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION FOR PATENT

ON

TENT

BY

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TENT

TECHNICAL FIELD

[0001] The present invention relates to a tent.

BACKGROUND OF THE INVENTION

[0002] Conventionally a tent frame is often made in a type which requires assembling. During use all parts have to be assembled on the spot, which is inconvenient for the outdoor operation, especially in rainy days and at night.

SUMMARY OF THE INVENTION

[0003] The purpose of this invention is to provide an integral tent, which is as convenient, light, handy, and easy to assembly and disassembly as a folding umbrella.

[0004] The present tent includes a tent frame and a canvas which covers the periphery of the tent frame, characterized in that the tent frame includes an umbrella-type frame for supporting the canvas and includes a spreader frame for spreading and opening the umbrella-type frame, the spreader frame being positioned in an inner side of an upper part of the umbrella-type frame, the umbrella-type frame including an upper central head in the middle and ribs distributed evenly around the upper central head and hinged to the upper central head, the spreader frame including a lower central head in the middle and spreaders distributed evenly around the lower central head and hinged to the lower central head, outside ends of the spreaders being hinged to upper parts of the ribs.

[0005] When the apparatus is pitched, the spreader frame is pushed upwards to open the umbrella-type frame, and the canvas attached to the umbrella-type frame is opened

accordingly. Because of tension of the tent, the umbrella-type frame will be arched after it is opened to some extent. When not in use, the tent is closed like an umbrella. Thus, the present tent is substantially advantageous in that it is light, handy, and easy to handle, and occupies less space.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIG. 1 is a schematic diagram illustrating a structure of the present invention;

[0007] FIG. 2 is a schematic diagram illustrating a partial structure of the present invention when it is opened;

[0008] FIG. 3 is a schematic diagram illustrating a partial structure of the present invention when it is disassembled; and

[0009] FIG. 4 is a schematic diagram illustrating a hinge joint of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0010] Referring to the attached figures, the present invention relates to a tent including a tent frame and a canvas which covers the periphery of the tent frame, characterized in that the tent frame includes an umbrella-type frame for supporting the canvas and includes a spreader frame for spreading and opening the umbrella-type frame, the spreader frame being positioned in an inner side of an upper part of the umbrella-type frame, the umbrella-type frame including an upper central head 1 in the middle and ribs 2 distributed evenly around the upper central head 1 and hinged to the upper central head 1, the spreader frame including a lower central head 3 in the middle and spreaders 4 distributed evenly around the lower central head 3 and hinged to the lower central head 3, outside ends of the spreaders being hinged to upper parts of the ribs.

[0011] The foregoing-described upper central head includes connectors 5 for hinging to the ribs, and the lower central head includes connectors for hinging to the spreaders.

[0012] The foregoing-described connectors have grooves at inner surfaces. The foregoing-described central head includes a base and a cap covering the base. The base includes racks at its outer surface. The grooves of the connectors are closely coupled with outsides of the racks. The upper end of the connector is fastened to the skirt part of the cap, and the lower end of the connector is fastened to the rim of the base. On the top of the cap of the lower central head, there is a protrusion 6, which can be inserted into an opening at the base of the upper central head. When in use, since the connectors are coupled to the racks of the central heads, the number of the connectors can be adjusted according to the size of the tent, which in turn changes the number of the spreaders.

[0013] There are four openings on the top of the foregoing-described upper central head, which are used by cords 7. In the middle part of the base of the foregoing-described lower central head, there are two movable blocks 8 for winding the cords. One end of the cords is fixed on the upper central head, while the other end is extended to the outside via the openings of the upper central head after winding around the movable blocks (see FIG. 3). The use of double movable blocks may greatly reduce the force needed to pull the cords tight.

[0014] The umbrella-type frame and the spreaders described above are composed of short bars connected to each other for easy folding. One connector 9 is composed of two short joints hinged to each other. One of the joints includes a notch 10 at its hinging end. A sliding cover 11 is around the other joint for positioning. The sliding cover includes a convex button 12 at its head for inserting into the notch. The sliding cover includes a spring 13 for fixing the sliding cover and pressing the convex button into the notch, which is positioned at the junction of the tail of the sliding cover and the short bar.

[0015] The foregoing-described connector is positioned at the junction of the rib and a short ground supporting bar. The upper short bar of the rib is hinged by a connector 14.

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Boards are positioned on the inner side of the connector to prevent the ribs from bending inward.